said existing viewers; and determining whether or not a capacity of said system is sufficient to support at least one additional viewer based at least in part on said balancing of said I/O capacity with said buffer memory space; and

5   wherein said managing further comprises determining said read-ahead size by monitoring the number of existing viewers served from said at least one storage device or partitioned group of storage devices, and monitoring the data consumption rate of said existing viewers; balancing said I/O capacity with said buffer memory space based at least in part on said monitored number of existing viewers and said monitored data

10   consumption rates of said existing viewers; setting a cycle time based at least in part on said balancing of said I/O capacity with said buffer memory space; and determining a number of read ahead data blocks based at least in part on said cycle time, said monitored data consumption rate, and a size of said data blocks.

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81.   The method of claim 71, wherein individual storage devices of said at least two storage devices or partitioned groups of storage devices comprise storage disk drives; and wherein said at least one of said monitored I/O system performance characteristics comprise at least one of

20   seek and rotation latency, estimated transfer rate, or a combination thereof.

82.   The method of claim 65, wherein said method further comprises validating an estimated value of at least one of said system I/O performance characteristics by comparing a monitored

25   value of at least one system I/O performance characteristic to the estimated value of said at least one system I/O performance characteristic.

83.   The method of claim 82, wherein said method further comprises reporting an alarm based

30   at least in part on said comparison of the monitored value of said at least one system I/O

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performance characteristic to the estimated value of said at least one system I/O performance characteristic.

5   84.   A method of monitoring I/O resource utilization in an information delivery environment, comprising monitoring said I/O resource utilization at the logical volume level.

85.   The method of claim 84, wherein said information delivery environment comprises
10   delivery of continuous media data to a plurality of viewers from an information management system comprising a storage system, said storage system including said I/O resources and having at least one storage device or at least one partitioned group of storage devices.

15   86.   The method of claim 85, wherein said monitoring of said I/O resource utilization comprises monitoring a workload of said at least one storage device or at least one partitioned group of storage devices at the logical volume level.

20   87.   The method of claim 85, wherein said monitoring of said I/O resource utilization comprises monitoring system I/O performance characteristics of said at least one storage device or at least one partitioned group of storage devices at the logical volume level.

25   88.   The method of claim 85, wherein said monitoring of said I/O resource utilization comprises constantly monitoring a workload of said at least one storage device or at least one partitioned group of storage devices at the logical volume level during run-time of said storage system; and wherein said method further comprises deciding to accept or reject at least one new I/O request based at least in part on said monitored workload.

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89.   The method of claim 85, wherein said method comprises monitoring at least one of maximal aggregate consumption rate for said at least one storage device or partitioned group of storage devices, maximal aggregate number of viewers for said at least one storage device or partitioned group of storage devices, or a combination thereof.

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90.   The method of claim 84, wherein said information delivery environment comprises delivery of continuous media data to a plurality of viewers from an information management system comprising a storage system, said storage system including said I/O resources and having

10   at least two storage devices or at least two partitioned groups of storage devices.

91.   The method of claim 90, wherein said information management system comprises a content delivery system coupled to a network; and wherein said continuous media data is

15   delivered from said content delivery system to said plurality of viewers across said network.

92.   The method of claim 91, wherein said content delivery system comprises an endpoint content delivery system coupled to said network at an endpoint of said network.

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93.   The method of claim 91, further comprising monitoring a workload distribution across said at least two storage devices or at least two partitioned groups of storage devices.

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94.   The method of claim 93, wherein said workload distribution is monitored by monitoring at least one of maximal aggregate consumption rate for each of said at least two storage devices or partitioned groups of storage devices, maximal aggregate number of viewers for each of said at least two storage devices or partitioned groups of storage devices, or a combination thereof.

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